

STATEMENT OF CONSIDERATIONS

REQUEST BY GENERAL ELECTRIC POWER SYSTEMS, FOR AN ADVANCE WAIVER OF DOMESTIC AND FOREIGN INVENTION RIGHTS UNDER DOE COOPERATIVE AGREEMENT NO. DE-FC26-03NT41841; W(A)-03-050, CH-1171

The Petitioner, General Electric Power Systems (GEPS), was awarded this cooperative agreement for the performance of work entitled, "High Efficiency Steam Turbines with Ultra Long Buckets". The purpose of the cooperative agreement is to develop, demonstrate, and risk mitigate technology for full-speed, ultra-long steam turbine buckets that will set new industry standards in terms of bucket length, section efficiency, cost effectiveness, and turbine output that will result in improvement on LP Turbine Last Stage Bucket efficiency by as much as 2% to 3%, and Rankine cycle efficiency improvements of up to 0.5%. According to the Statement of Project Objectives, the project will develop and analytically validate the conceptual designs for full speed 54" steel-hybrid and 62 " titanium-hybrid last stage buckets (LSB's). It will identify, test (both environmental and operational), and select candidate lightweight filler materials suitable for steel and titanium LSB's, with extensibility to earlier bucket stages. To mitigate risk and accelerate the introduction of this technology, the project will design, build, and test a full-scale prototype 33.5" steel-hybrid LSB with an advanced 3D aerodynamic shape that will serve as the basis for the first introduction into service. The project will also include sub-scale testing of a stage 33.5" buckets, and will assess a number of ancillary benefits of the hybrid technology including blade/system dynamical tuning, damping, and the potential for elimination of cover and mid-span damping devices.

The total estimated cost of the cooperative agreement is \$2,325,583 with the DOE share and petitioner share being evenly split at \$1,162,791, or 50%. The period of performance is from October 1, 2003 to September 30, 2005.

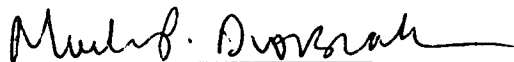
In its response to question 5 of the attached waiver petition, GEPS has described its technical competence in the field of long bucket technology and energy products and services. GEPS is a division of General Electric, an international leader in energy products and services. GE serves power generation, industrial, marine, oil and gas, and distributed generation markets. GE has thousands of Technical Patents in related areas of design including long buckets, material technology and processing and manufacturing techniques. Exhibits A and B to GEPS's waiver petition include a list of representative GEPS patents and technical articles related to Long Bucket technology. GEPS's response demonstrates its technical competency in the field of steam turbines with ultra long buckets.

In its response to questions 9 and 10 of the attached waiver petition, GEPS states that grant of the waiver will promote the development and commercial utilization of subject inventions by encouraging further development of the technology for final implementation in both retrofit and new product applications; improved cycle efficiency increases; and potential applicability to other stages of the turbine. In addition, since multiple competitive awards resulted from the solicitation resulting in this award, grant of the waiver should not hinder competition in the marketplace. Therefore grant of the waiver will have a positive effect on competition and market concentration.

The subject cooperative agreement will be modified to add the Patent Rights--Waiver clause in conformance with 10 CFR 784.12, wherein GEPS has agreed to the provisions of 35 U.S.C §§ 202, 203, and 204. This waiver clause will also include a paragraph entitled U.S. Competitiveness, in which GEPS agrees to substantial U. S.

manufacture of subject inventions (attached hereto). Additionally, GEPS agrees not to transfer subject inventions to any other entity unless that other entity agrees to these same requirements. The petitioner has further agreed to modification of the data clause of the subject cooperative agreement (48 C.F.R. 952.227-14) by adding paragraph (k), Alternative VI, concerning contractor licensing of data.

Considering the foregoing, it is believed that granting the waiver will provide the Petitioner with the necessary incentive to invest resources in the commercialization of the results of the agreement in a fashion which will make the agreement's benefits available to the public in the shortest practicable time. In addition, it would appear that grant of the above requested waiver would not result in an adverse effect on competition nor result in excessive market concentration. Therefore, in view of the objectives and considerations set forth in 10 CFR 784, all of which have been considered, it is recommended that the requested waiver, as set forth above, be granted.

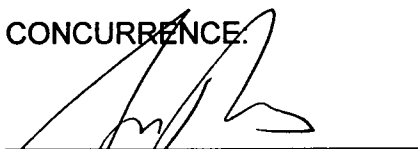


Mark P. Dvorscak
Assistant Chief Counsel
Intellectual Property Law Division

Date: Dec 30, 2003

Based on the foregoing Statement of Considerations and the representations in the attached waiver petition, it is determined that the United States and the general public will best be served by a waiver of rights of the scope described above, and therefore the waiver is granted. This waiver shall not apply to any modification or extension of this agreement, where through such modification or extension, the purpose, scope, or cost of the agreement is substantially altered.

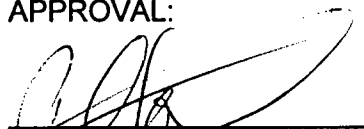
CONCURRENCE:



George Rudins
Deputy Assistant Secretary
Office of Fossil Energy
Coal and Power Systems
FE-20/FORS

Date: 2/11/04

APPROVAL:



Paul A. Gottlieb
Assistant General Counsel
for Technology Transfer and
Intellectual Property

Date: 2-12-04

(t) U. S. COMPETITIVENESS The Contractor agrees that any products embodying any waived invention or produced through the use of any waived invention will be manufactured substantially in the United States unless the Contractor can show to the satisfaction of the DOE that it is not commercially feasible to do so. In the event the DOE agrees to foreign manufacture, there will be a requirement that the Government's support of the technology be recognized in some appropriate manner, e.g., recoupment of the Government's investment, etc. The Contractor agrees that it will not license, assign or otherwise transfer any waived invention to any entity unless that entity agrees to these same requirements. Should the Contractor or other such entity receiving rights in the invention undergo a change in ownership amounting to a controlling interest, then the waiver, assignment, license, or other transfer of rights in the waived invention is suspended until approved in writing by the DOE.